

R E M A R K S

Claims 1-28 were pending in the application. Claims 16-24 have been withdrawn. Claims 1, 10, 13 and 25 are independent claims. No new matter has been added by this amendment.

Applicants respectfully submit that the present application is in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Claim Objections

The Office Action objects to claims 16-24 because of informalities. The Office Action states that claims 16-24 should be marked as cancelled.

Applicants respectfully submit that claims 16-24 are currently withdrawn but not cancelled.

Applicants respectfully request that any requirement to cancel claims 16-24 be held in abeyance until the pending claims are allowed.

Claim Rejections – 35 USC § 103

The Office Action rejects claims 1, 7-9, 10 and 13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0128945 (Kuo et al.) in view of U.S. Patent Application Publication No. 2004/0260832 (Kota et al.).

Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1

Claim 1 recites a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining **a number of transmit buffers** to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if **the number of transmit buffers** does not exceed a pre-determined threshold. (emphasis added).

Neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests the method of claim 1.

Kuo et al. disclose preventing a packet associated with a blocked port from being placed in a transmit buffer (title). FIG. 4 is a block diagram of an apparatus 400 according to some

embodiments (para 0020). The apparatus 400 includes a schedule microengine 410 that provides to a transmit microengine 420 (para 0020). The transmit microengine 420 stores packets in an external memory unit 430 that has a single transmit buffer 432 for a plurality of ports (para 0021). According to an embodiment, the transmit microengine 420 receives information indicating whether or not a port is currently blocked (para 0022). Based on such an indication, the transmit microengine 420 may begin to store packets associated with P_x in a local buffer or queue 422 (para 0023). For example, as illustrated in FIG. 4 the transmit microengine 420 might store packets associated with P₀ in the local queue 422 when it determines that P₀ is currently blocked (para 0023). In this way, additional packets associated with P₀ (which would eventually result in additional time outs) are prevented from being placed in the transmit buffer 432 and unnecessary delays may be avoided (para 0023).

However, contrary to the assertion in the Office Action (Office Action page 3, lines 20-23) the local queue 422 is not part of the transmit buffer 432. Indeed, as stated above, Kuo explicitly state that the transmit microengine 420 might store packets associated with P₀ in the local queue 422 (para 0023). In this way, additional packets are prevented from being placed in the transmit buffer 432 (para 0023).

For at least the reason above, Kuo et al. do not teach or suggest determining a number of transmit buffers to be associated with the packet, as recited in claim 1. (emphasis added).

Nor do Kuo et al. teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 1. (emphasis added).

For at least the reasons above Kuo et al. do not teach or suggest a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 1. (emphasis added).

Kota et al. disclose bandwidth, framing and error detection in communications between multi-processor clusters of multi-cluster computer systems (title). Some embodiments provide

an interconnection controller that includes a module comprising a remote transmission buffer (para 0009). The module is configured to perform the following steps: receive inter-cluster packets from the encapsulation logic; store inter-cluster packets in the remote transmission buffer; forward inter-cluster packets for transmission on the inter-cluster link; determine when the remote transmission buffer is empty; generate a special packet for transmission on the inter-cluster link when the buffer is empty; and forward the special packet for transmission on the inter-cluster link without storing the special packet in the remote transmission buffer (para 0010-0016).

However, the decision to forward the special packet to the inter-cluster link without storing the special packet in the transmission buffer appears related to whether the transmission buffer is empty and does not appear to be related to the number of transmit buffers to be associated with a packet.

For at least the reason above, and at the very least, Kota et al. do not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if **the number of transmit buffers** (i.e., the number of transmit buffers to be associated with the packet) does not exceed a pre-determined threshold.

Consequently, neither Kuo et al., nor Kota et al, nor any combination thereof proposed in the Office Action, teaches or suggests a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining **a number of transmit buffers** to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if **the number of transmit buffers** does not exceed a pre-determined threshold, as recited in claim 1. (emphasis added).

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 10

Claim 10 recites an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be

transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

Neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests the article of claim 10.

At the very least, Kuo et al. do not teach or suggest determining a number of transmit buffers to be associated with the packet.

Nor do Kuo et al. teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

At the very least, Kota et al. do not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 10.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 13

Claim 13 recites an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests the apparatus of claim 13.

At the very least, neither Kuo et al., nor Kota et al. teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold, as recited in claim 13.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 25

Claim 25 recites a system, comprising: a backplane; a first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests the system of claim 25.

At the very least, neither Kuo et al., nor Kota et al. teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Kota et al., nor any combination thereof proposed in the Office Action, teaches or suggests a system, comprising: a backplane; a

first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold., as recited in claim 25.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Dependent claims

Claims 2-9 and 28 depend from independent claim 1 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 1.

Claims 11-12, 14-15 and 26-27 depend from independent claims 10, 13 and 25, respectively, and therefore should be allowed for at least the reasons set forth above with respect to independent claims 10, 13 and 25, respectively.

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that the present application is in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Because the reasons set forth above are sufficient to overcome the rejections set forth in the outstanding Office Action, Applicants do not address some of the assertions set forth therein and/or other possible reasons for overcoming the rejections. Nonetheless, Applicants reserve the right to address such assertions and/or to present other possible reasons for overcoming the rejections in any future paper and/or proceeding.

If the Examiner believes that a telephone interview would expedite the prosecution of this application in any way, the Examiner is cordially requested to contact the undersigned via telephone at (203) 972-0006, ext. 1014.

Respectfully submitted,

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